nor have I seen the types. However, from a careful consideration of the type description, it appears to have no significant differences from *a. nigrescens* except in scutal markings. Taylor describes the scutum as follows: "Scutum chocolate-coloured, covered with mixed golden and chocolate-brown, narrow-curved scales; there is a moderately broad median transverse band of golden scales reaching right across the scutum, reaching this but not passing it is a broad (about a quarter the width of the scutum) stripe of golden scales, the golden scales are very pronounced on the anterior margin of the scutum."

The larvae were found in a shallow rock pool containing a large quantity of decaying vegetable matter.

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## ZOOLOGY.—*Observations on the occurrence of certain barnacles and isopods at Beaufort, N. C.*[1] A. S. PEARSE, Duke University.

During the summer of 1946 collections were made of certain crustacean parasites that occurred on marine mollusks, crabs, shrimps, king crabs, and fishes at Beaufort, N. C. The results for copepods have already been published (1947). The present report deals with barnacles and isopods. Thanks are due to L. B. Hayes, David Busby, and Glen E. Mathisen who helped with the routine examinations. A new isopod is described. Specimens of this and other crustaceans have been deposited in the United States National Museum.

### Order CIRRIPEDIA
### Division LEPADOMORPHA
### **Octolasmis mulleri** (Coker)

Coker (1902) wrote an excellent paper on the occurrence and development of this barnacle from studies he made at Beaufort. He examined

[1] Received March 31, 1947.

180 blue crabs (*Callinectes sapidus* Rathbun) and found 128 (71 percent) infested with these parasitic barnacles. The females more often carried barnacles in their gill chambers (89 percent) than males (56 percent). The number in crabs ranged from "one to as many as can be crowded into the branchial chambers —500 to 1,000, or perhaps more." Coker also at times found the barnacles in the branchial chambers of stone crabs (*Menippe mercenaria* Stimson) and spider crabs (*Labinia caniliculata* Say).

During the summer of 1946 (June 8–28) the writer examined 93 *Callinectes sapidus* and 22 (23.7 percent) contained from 1 to 84 barnacles. These numbers are below those reported by Coker, but he says that infestation was heavier in the latter part of the summer. The writer found a total of 554 barnacles, an average of almost six per crab.

Division Balanomorpha

**Chelonibia patula** (Ranzani)

Ninety-three blue crabs (*Callinectes sapidus* Rathbun) examined during June 1946 bore 1,592 of these barnacles on the carapace, legs, and abdomen; an average of 17 per individual. Those from deeper water had more than those from shallow shores; 7 taken in a trawl at a depth of 40 feet bore 485; one individual, 120. Of the 93 hosts examined, 57 bore Chelonibias (61 percent).

Four king crabs (*Limulus polyphemus* Linnaeus), examined on June 27, bore 198 barnacles; some of these were of this species, some of *Balanus amphitrite niveus* Darwin, and some too small to be placed specifically.

Order Isopoda

Tribe Cymothoida

**Nerocila acuminata** Schioedte and Meinert

On June 11 two fishes (banded croaker, *Larimus fasciatus* Holbrook; weakfish, *Cynoscion regalis* Bloch and Schneider), were found floating in the channel in front of the Duke University Marine Laboratory. Both of these had a female *Nerocila* in the mouth. On June 24 five harvestfishes, *Peprilus alepidotus* (Linnaeus), contained three more, and on June 26 three of the same fishes bore another one. On June 28 ten sea-robins, *Prionotus carolinus* (Linnaeus), had one in the mouth of one individual. On July 31 five spadefish, *Chaetodipterus faber* (Broussonet), furnished another in a branchial chamber. On August 21 a pinfish, *Lagodon rhomboides* (Linnaeus), had one in its mouth. All the hosts mentioned are spiny-rayed fishes (Acanthopteri), but Richardson (1905) reports this isopod from the sawfish, *Pristis pectinatus* Latham.

Tribe Bopyroidea

**Probopyrus alphei** Richardson

From the branchial chamber of a snapping shrimp, *Crangon heterochaelis* (Say), a female and her attached dwarf male were taken on July 29.

**Probopyrus pandalicola** (Packard)

From the branchial chambers of about 500 *Palaemonetes carolinus* Stimpson, taken at Mortons Mill Pond on July 2, 52 females were taken and 50 of these bore dwarf males.

**Leidya distorta** (Leidy)

Between May 28 and July 10, 435 fiddler crabs (*Uca pugilator* (Bosc)) were examined. In the branchial cavities of some of these 7 female and 5 male Leidyas were found. During August Dr. Martin Burkenroad brought in four fiddlers that he picked up after dark, as he observed that they were sluggish and appeared to be "sick." Three of these also contained Leidyas.

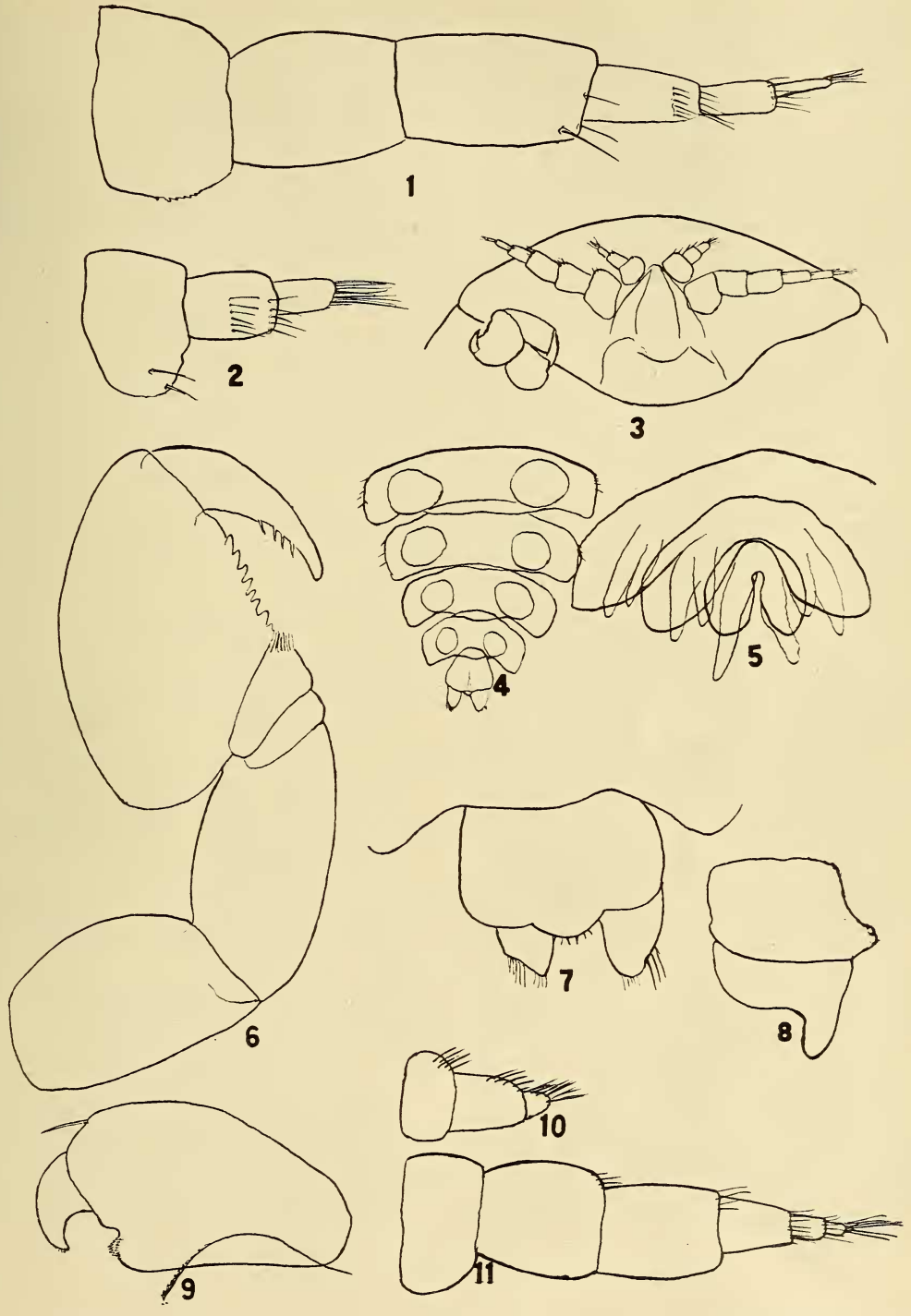
**Pseudione upogebiae** Hay

May 30 to August, 89 *Upogebia affinis* (Say) were examined and yielded 9 female and 7 male Pseudiones, 6 nematode worms; and in their burrows were also found 3 polyclad worms and 4 *Pinnixa cristata* Rathbun.

**Pseudione panopei** n. sp.

Between June 9 and July 26, 506 individuals of *Panopeus herbstii* Milne-Edwards were examined and no parasites of this species were found but on August 22, 2 large females, 3 small females, and two males were taken from the branchial cavities of 25 crabs. The holotype female (U.S.N.M. no. 82669), allotype male (U.S.N.M. no. 82670), and a paratype female (U.S.N.M. no. 82671) have been deposited in the U.S. National Museum.

*Female.*—Body, somewhat asymmetrical, longer than wide (13.5×8 mm; 12.5 × 8 mm);




FIGS. 1–11.—*Pseudione panopei*, n.sp.: 1, Antenna of female; 2, antennule of female; 3, head and first leg of female; 4, posterior portion of abdomen of male; 5, posterior portion of abdomen of female; 6, first leg of male; 7, telson and uropods of male; 8, first plate from incubatory pouch of female; 9, fifth leg of male; 10, antennule of male; 11, antenna of male.

flat; unpigmented. Head in a ventral view is a little longer than wide (2.2×1.8; 3×2.8 mm), slightly arched in front and deeply rounded behind; without eyes. Antennules (Fig. 2) 3-segmented and antennae (Fig. 1) 6-segmented; segments progressively narrower distally. Thorax with all segments separate; epimera on all, narrow. Abdominal segments (Fig. 5) separate; epimera flat, posterolateral angles somewhat produced into toothlike processes. The seven pairs of legs are prehensile and bear blunt teeth on the surface that meets the terminal claw. The terminal claws on the legs are progressively shorter and more robust posteriorly. The pleopods are elongate, tapering, leaf like, biramous; their lateral margins bear single rows of about 9 blunt processes on their lateral margins and are rough on their median margins. The uropods are uniramous and project one-third of their length beyond the bifid telson. Incubatory pouch enclosed by five pairs of plates, the first is 2-segmented and bears a rounded lobe (Fig. 8).

*Male.*—Body slender, a little less than $3\frac{1}{2}$ times as long as wide (3.3 mm×1.0 mm); bilaterally symmetrical. Head nearly twice as wide as long, rounded anteriorly and posteriorly, with a median anterior depression. Thoracic segments all separate; with flat, rounded epimera which are setose on the lateral margins. Abdominal segments (Fig. 4) gradually diminish posteriorly; the first is four times as wide as long and the sixth is twice as wide as long; the telson is about as wide as long, bears a median posterior lobe; uropods, a little longer than wide, setose at tips (Figs. 4, 7). Antennules 3-segmented, setose on median margin (Fig. 10), second segment is longest. Antennae (Fig. 11) 6-segmented; segments decrease in diameter distally and the terminal segment is minute; second and third segments longest; five terminal segments setose on median distal margin. Thoracic legs grow gradually smaller and more robust posteriorly (Figs. 6, 9); terminal hook on front leg bears 4 spines on inner margin and about 7 teeth on the penultimate segment opposite the hook; the posterior legs have short hooks and lack spines and teeth but are setose.

The pleopods somewhat resemble those of *Pseudione upogebiae* Hay, 1917, but the present species differs from that one in the number of segments in the antennae, the character and armature of the thoracic legs, the first plate of the incubatory pouch, and the telson of the male.

### **Cancrion carolinus** Pearse and Walker

From the bodies of 506 mud crabs, *Panopeus herbstii* Milne-Edwards, 17 Cancrions were taken between June 9 and July 26. Thus 3.4 percent were infested. All these parasites were females. On July 8 four Cancrions (2 large, 2 small) were found in one crab, and on July 29 two occurred in another crab. No males were observed. Several of the females were immature.

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